






# “Does corporate governance report disclosure increase stock retirement? Evidence from Korea”

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# DOES CORPORATE GOVERNANCE REPORT DISCLOSURE INCREASE STOCK RETIREMENT? EVIDENCE FROM KOREA

## Abstract

This study examines the influence of the mandatory disclosure of corporate governance reports on stock retirement in Korea. Given the challenges of applying stock repurchasing to measure shareholder return policy in the Korean stock market, this study focuses on stock retirement as a key indicator to examine the effectiveness of introducing the corporate governance report on shareholder return policy. Employing the Difference-in-Differences approach followed, this paper conducts empirical analyses based on 5,932 observations from 2011 to 2020. The main findings indicate a significant increase in stock retirement by companies implementing mandatory disclosures of corporate governance reports (coef = 0.018, p-value <0.01) compared to companies that do not disclose them. The results of the alternative measures for stock retirement and propensity score matching (PSM) model also present a positive association between mandatory disclosure of corporate governance reports and stock retirement, respectively (coef = 0.400 and 1.421, p-value <0.01; coef = 0.019, p-value < 0.1). This study provides evidence to support the notion that introducing corporate governance reports enhances overall shareholder returns, leading to an increase in stock retirement. Moreover, these findings validate that stock retirement is an adequate proxy for analyzing the level of shareholder returns in Korean firms.

## Keywords

corporate governance, mandatory disclosure, stock retirement, shareholder return policy

## JEL Classification

G34, G35, M48

## INTRODUCTION

Despite a surge in share buybacks in the Korean stock market, the stock prices often fail to meet shareholders' expectations<sup>1</sup>. This disparity arises because the Korean stock market permits treasury stock resale instead of retiring following a share buyback. In Germany and Japan, share buyback and resale must follow the principle of shareholder equality; therefore, regulations for issuing new shares must be followed for treasury stock resale as well. In contrast, treasury stock resale and the issue of new shares are treated separately in Korea, allowing opportunistic behavior, such as safeguarding management control without utilizing private funds. Therefore, major shareholders in the Korean stock market prefer not to retire treasury stock, which should be retired to increase the stock prices.

Effective corporate governance practices can discourage major shareholders from engaging in such opportunistic behavior. In 2019, the Financial Services Commission (FSC) of Korea introduced a cor-

<sup>1</sup> According to the Korea Exchange (KRX), stock prices of 302 of 514 listed companies decreased three months after the announcement and those of 174 companies dropped the day after (E-Korea 2023).

porate governance report<sup>2</sup> to implement effective corporate governance. The Corporate Governance Report requires that Korean-listed firms with assets of more than 2 trillion KRW (approximately 1.5 billion US dollars) mandatorily disclose 15 core indicators spanning three major categories: shareholders, boards, and audit committees. Mandatory disclosure is expected to increase stock retirement in three ways: First, specific principles<sup>3</sup> regarding shareholder rights provide that a company establishes a long-term shareholder payout policy. Second, with board category provisions,<sup>4</sup> transparency is expected to increase in the operation of the board of directors, preventing major shareholders from opportunistically employing share buybacks instead of retirement. Finally, the report provides additional information that improves comparability, causing a company to increase shareholder payouts to meet shareholders' expectations.

## 1. LITERATURE REVIEW

Many prior studies show that corporate governance is positively associated with corporate value. Corporate governance can be defined as the interaction mechanism of participating organizations, such as the relationship between managers and supervisory institutions, internal and external auditors, and regulators (Kim & Kang, 2018). Corporate governance aims to increase shareholder value and protect the private interests of major shareholders (Shleifer & Vishny, 1997). From this perspective, many prior studies state that high-quality corporate governance enhances corporate value (Bhojraj & Sengupta, 2003; Gomper et al., 2003; Drobetz et al., 2004; Black et al., 2006; Park et al., 2005; Lee, 2005; Oh & Choe, 2011; Lee, 2015; Kim & Lee, 2012; Lee & Kim, 2018).

However, the criteria and methods for measuring corporate governance quality are inconsistent, and how high-quality corporate governance is related to shareholder value has not been discussed in detail. The regulation of disclosing corporate governance reports was implemented in 2017, and voluntary disclosure was encouraged. However, no specific regulations are required for voluntary disclosure, providing limited and inadequate information to the market. To solve this issue, the Financial Services Commission (FSC) of Korea amended regulations on corporate governance disclosure in 2019. Korean listed firms with assets

of more than 2 trillion KRW (approximately 1.5 billion US dollars) mandatorily disclose corporate governance reports.

The FSC presents 15 core corporate governance indicators that highlight the importance of specific principles concerning shareholder rights, emphasizing the necessity for a company to create a comprehensive long-term shareholder payout policy. For instance, Samsung Electronics Co., Ltd. established a shareholder return program under which 50% of the total free cash flow would be distributed to shareholders, including stock retirement, for the subsequent three years.<sup>5</sup> The second aspect involves board category provisions that enhance transparency in the operations of the board of directors. This measure is anticipated to prevent major shareholders from strategically opting for share buybacks during stock retirement. Finally, the provision of additional information in the report is stated to enhance comparability, leading a company to augment shareholder payouts to meet shareholders' expectations. Therefore, introducing mandatory disclosure of corporate governance advises information users by using integrated standard measurements to examine the overall quality of corporate governance.

Furthermore, mandatory disclosure of corporate governance reports is highly accessible and regulated, which increases comparability when examining the quality of corporate governance. The accessibility of previous corporate governance dis-

2 The corporate governance report is like the corporate governance code in the UK. The code comprises principles that must be applied and provisions that require companies to report on their governance on a "comply or explain" basis, which enables investors to deal more effectively with material governance issues of individual companies (The Financial Reporting Council 2022).

3 Specific Principle 1-④ in Appendix B.

4 Board category in Appendix B.

5 Samsung Electronics Co., Ltd. "Corporate governance report FY2020."

closures in financial statements is limited to shareholders, especially individual investors (Byun & Cho, 2010). Similarly, the corporate governance ratings evaluated by the Korean Institution of Corporate Governance and Sustainability (KCGS) published only the final evaluation results without any details regarding how to calculate the ratings, decreasing comparability (Kim et al., 2020b). As the disclosure of corporate governance reports became mandatory, stakeholders could access detailed corporate governance information such as the board of directors, audit systems, and shareholders' voting rights. In addition to increased capability, the amended regulation of mandatory disclosures motivates companies to build corporate governance more effectively. Since the high quality of corporate governance leads to an increase in the shareholders' value<sup>6</sup>, mandatory disclosure contributes to the companies' commitment to improving corporate governance to attract shareholders. This can be found in the prior literature, which shows that companies with mandatory disclosure involve earning management to satisfy expectations (Kaszniak, 1999; Gramlich & Sorensen, 2004; Cormier & Martinez, 2006; Cheon & Chon, 2009). As a result, the mandatory disclosure of corporate governance reports increases capability through regulated uniform structure and motivates the creation of effective corporate governance structures.

Prior research on shareholder return policy consistently shows that stock repurchase is a shareholder-return policy that positively impacts shareholder value. This positive impact on shareholder value is amplified by high-quality corporate governance. According to Ginglinger and L'her (2006), the market considers the quality of corporate governance when valuing stock repurchase announcements. In a study of 33 countries, Haw et al. (2011) showed that stock repurchases enhance firm value when the state strengthens investor protection. Similarly, Webb (2008) shows that managers with effective corporate governance are unlikely to decide on stock repurchases unless they are sure that it will increase shareholder value. Therefore, stock repurchase announcements of firms with effective corporate governance positively increase shareholder value.

Previous studies have mainly focused on stock repurchasing to measure shareholder value enhancement because stock retirement is premised on stock repurchases in other OECD countries. In Germany, stock repurchases and resales must follow the principle of shareholder equality and the same regulation for issuing new shares will be followed for stock resale. Japan also requires the same procedure for issuing new shares for stock resale, which is invalid in the case of a violation of the procedure. The U.K. stipulates that stock resale is subject to the preemptive rights of existing shareholders. According to the City Code, any defensive action that may deteriorate shareholder value is prohibited in an M&A situation. In the case of the U.S., there is no particular restriction on the sale of treasury stock. However, considering the financial market operations and litigation system, any action that reduces shareholder value is restricted (Ayres, 1990). Based on these premises, the market recognizes stock repurchases as a shareholder return policy, along with dividends (Kim & Lim, 2017).

However, stock resale and issuing new shares are defined separately in Korea, indicating that the decreasing shareholder value from stock resale is not legally protected. According to prior literature on stock retirement, Byun and Pyo (2006) state that it is necessary to concentrate on whether retirement is made after the stock repurchase because stock resales are frequently executed in the Korean stock market. However, only a few of the empirical evidence of resale and retirement after the stock repurchase are provided in the prior literature, and most of the papers are from jurists regarding the legality and acceptability of stock resale (Kim, 2016; Park, 2013; Ahn, 2014; Chung, 2012). Specifically, stock resale is no longer treated as a shareholder return policy because of opportunistic behavior from managers or controlling shareholders. By contrast, retirement is considered a shareholder return policy that increases shareholder value. Thus, this study focuses on stock retirement to measure shareholder-value enhancement, which permanently reduces the number of outstanding shares.

6 Korea Exchange (KRX), 2017.10.10. Press Release.

Collectively, mandatory disclosure of corporate governance reports has increased comparability by providing standardized indicators for measuring corporate structure, and high-quality corporate governance has been shown to increase stock repurchase and enhance shareholder value. This is because stock retirement is premised on stock repurchases in other OECD countries, which is different from Korea. Therefore, considering this aspect, this study examines it through stock retirement instead of share repurchases as a shareholder payout; however, only a few studies have been conducted. As a result, this study examines whether introducing mandatory disclosure into corporate governance reports leads to increased stock retirement. As in previous studies, if mandatory disclosure in corporate governance reports enhances shareholder value, we would expect an increase in stock retirement after introducing mandatory disclosure in corporate governance reports.

## 2. METHODS

This study employs the DID methodology to clarify the impact of the mandatory disclosure of corporate governance reports on stock retirement. The DID methodology enables the examination of changes in stock retirement from pre- to post-mandatory disclosure periods for companies that disclose corporate governance reports relative to those that do not. The dependent variable, *RETIRE*, denotes the number of retired stocks divided by the sum of the initial balance of treasury and repurchased stocks in the current year (Kim & Kang, 2018). *TREATMENT* represents companies with a mandatory disclosure of corporate governance reports in 2018. The dummy variable *POST* takes a value of 1 if the company year is 2018 or later and 0 otherwise. The interaction term between *TREATMENT* and *POST* captures the treatment effect of increasing adopters' stock retirement after the mandatory disclosure period. Firm characteristics are included as control variables, which have been shown to affect shareholder payouts (Giannetti, 2003; Petersen & Rajan 1997).<sup>7</sup> The formal regression model is as follows.

$$\begin{aligned} RETIRE_{it} = & \beta_0 + \beta_1 TREATMENT_{it} \\ & + \beta_2 POST + \beta_3 TREATMENT \cdot POST \\ & + \beta_4 SIZE_{it} + \beta_5 MTB_{it} + \beta_6 LEV_{it} \\ & + \beta_7 CASH\_CE_{it} + \beta_8 ROA_{it} + \beta_9 LOSS_{it} \quad (1) \\ & + \beta_{10} INDIRECT_{it} + \beta_{11} LARGE_{it} + \beta_{12} B_{SIZE_{it}} \\ & + \beta_{13} B_{IND_{it}} + \sum IndustryFixed \\ & + \sum YearFixed + \varepsilon_{it}. \end{aligned}$$

If the stock retirement of a company with mandatory disclosure of corporate governance reports has increased since 2018, the coefficient of the interaction term between *TREATMENT* and *POST* should be positive. *TREATMENT* is classified based on corporate governance reports data from the Korea Investor's Network for Disclosure System (KIND) operated by the Korean Exchange (KRX). Financial data were collected from TS2000 and FnGuide databases.<sup>8</sup> This study excludes financial institutions and companies with fiscal year ends other than December. Considering Korea's adoption of the International Financial Reporting Standards (IFRS), the sample period is from 2011 to 2020.

## 3. RESULTS

Table 1 provides descriptive statistics of the variables used to test the hypothesis. The average (median) of the number of retired stocks divided by the sum of initial treasury stocks and repurchased stocks at the present year (*RETIRE*) is 0.009 (0.000). The average (median) *TREATMENT*, an indicator variable that takes the value of 1 if a firm discloses the mandatory corporate governance report in 2018, is 0.264 (0.441), indicating that 0.9% of treasury stocks are retired and 26.4% of firms disclose corporate governance reports. The average (median) of controls, such as size (*SIZE*), growth (*MTB*), leverage (*LEV*), liquidity (*CASH\_CE*), performance (*ROA*), and retained earnings (*LOSS*), are 19.961 (19.732), 1.367 (0.269), 0.410 (0.412), 0.067 (0.039), 0.012 (0.023), and 0.252 (0.000), respectively.

<sup>7</sup> Variable definitions are explained in Appendix A.

<sup>8</sup> These databases are similar to Compustat and CRSP and are widely used for accounting research in Korea.



**Table 1.** Descriptive statistics

Variables	Obs	MEAN	STD	MEDIAN	MIN	MAX
RETIRE	5,932	0.009	0.070	0.000	0.000	0.597
TREATMENT	5,932	0.264	0.441	0.000	0.000	1.000
SIZE	5,932	19.961	1.467	19.732	17.156	23.547
MTB	5,932	1.367	1.374	0.930	0.269	8.670
LEV	5,932	0.410	0.212	0.412	0.027	0.931
CASH_CE	5,932	0.067	0.082	0.039	0.000	0.459
ROA	5,932	0.012	0.087	0.023	-0.424	0.219
LOSS	5,932	0.252	0.434	0.000	0.000	1.000
INDIRECT	5,932	0.264	0.441	0.000	0.000	1.000
LARGE	5,932	0.435	0.165	0.439	0.086	0.829
B_SIZE	5,932	5.659	2.228	5.000	2.000	13.000
B_IND	5,932	0.358	0.180	0.400	0.000	0.750

Note: See Appendix A for definitions of the variables.

Table 2 shows the results of a univariate analysis using a t-test to examine the difference between companies with mandatory disclosure of the corporate governance report and companies without it. Prior to the DID analysis examining the effect of introducing mandatory disclosure of corporate governance on stock retirement, this study

confirmed whether the execution of stock resale and retirement appears to depend on the mandatory disclosure of corporate governance reports. Panel A presents the mean difference between the *TREATMENT* and *CONTROL* groups. The result shows that the dependent variable *RETIRE* is statistically significant and negative. This result

**Table 2.** T-test**Panel A.** By TREATMENT

Variables	TREATMENT = 1 (A)			TREATMENT = 0 (B)			Diff. (B-A)	t-stat
	N	MEAN	STD	N	MEAN	STD		
RETIRE	1567	0.014	0.084	4365	0.008	0.064	-0.006	-2.83***
SIZE	1567	21.767	1.189	4365	19.312	0.909	-2.454	-84.13***
MTB	1567	1.435	1.395	4365	1.343	1.365	-0.092	-2.28**
LEV	1567	0.434	0.217	4365	0.402	0.210	-0.032	-5.07***
CASH_CE	1567	0.051	0.055	4365	0.073	0.089	0.021	8.84***
ROA	1567	0.027	0.062	4365	0.007	0.093	-0.020	-7.84***
LOSS	1567	0.190	0.392	4365	0.274	0.446	0.085	6.65***
INDIRECT	1567	0.191	0.393	4365	0.290	0.454	0.099	7.68***
LARGE	1567	0.418	0.164	4365	0.441	0.165	0.023	4.65***
B_SIZE	1567	6.172	2.534	4365	5.475	2.077	-0.697	-10.72***
B_IND	1567	0.387	0.203	4365	0.347	0.170	-0.040	-7.59***

**Panel B.** By POST (*TREATMENT* = 1)

Variables	TREATMENT = 1						Diff. (B-A)	t-stat
	POST = 0 (A)			POST = 1 (B)				
	N	MEAN	STD	N	MEAN	STD		
RETIRE	1093	0.009	0.067	474	0.025	0.113	0.017	3.65***

**Panel C.** By POST (*TREATMENT* = 0)

Variables	TREATMENT = 0						Diff. (B-A)	t-stat
	POST = 0 (A)			POST = 1 (B)				
	N	MEAN	STD	N	MEAN	STD		
RETIRE	3045	0.00765	0.0635	1320	0.00828	0.0661	0.001	0.30

Note: See the Appendix for the definition of the variables. Table 2 presents the results of the t-test. Panel A shows the mean difference between the *TREATMENT* group and the *CONTROL* group. Panel B shows the *TREATMENT* group's mean difference in the main dependent variables by POST. Panel C shows the same result as Panel B of the *CONTROL* group.

**Table 3.** Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1)RETIRE	1.000	0.039	0.033	0.075	0.016	0.055	0.018	0.011	-0.009	0.044	0.007	-0.041	-0.022	-0.025
(2)TREATMENT		1.000	0.000	0.492	0.681	0.065	0.076	-0.075	0.071	-0.086	-0.099	-0.065	0.126	0.108
(3)POST			1.000	0.448	0.040	-0.031	-0.050	0.043	-0.092	0.074	0.045	0.002	-0.322	-0.436
(4)TREATMENT*POST				1.000	0.341	-0.041	0.009	-0.040	-0.005	-0.021	-0.047	-0.011	-0.129	-0.188
(5)SIZE					1.000	-0.086	0.156	-0.075	0.132	-0.157	0.026	0.025	0.194	0.085
(6)MTB						1.000	0.044	0.136	0.169	-0.016	-0.124	-0.176	0.035	0.061
(7)LEV							1.000	-0.153	-0.352	0.281	-0.133	-0.144	0.071	0.101
(8)CASH_CE								1.000	0.169	-0.073	0.096	-0.116	-0.017	-0.026
(9)ROA									1.000	-0.752	0.058	0.123	0.047	0.047
(10)LOSS										1.000	-0.076	-0.175	-0.035	-0.009
(11)INDIRECT											1.000	0.005	0.029	-0.053
(12)LARGE												1.000	-0.084	-0.044
(13)B_SIZE													1.000	0.509
(14)B_IND														1.000

Note: See the Appendix for the definition of the variables. Table 3 presents the correlation results between the main variables. All bold numbers are below the 5% level of significance.

would be driven by the fact that the company with mandatory disclosure of corporate governance reports was designated a company with assets of 2 trillion KRW or more, indicating that a sufficient level of corporate governance was already implemented before the mandatory disclosure. Panel B shows the mean difference in *TREATMENT* for the main dependent variables by *POST*, and Panel C shows the same result as Panel B, that of *CONTROL*. The mean difference of *RETIRE* is statistically significant from *TREATMENT* only and not from *CONTROL*.

Table 3 provides the correlations between the variables. The variable representing a company with mandatory disclosure (*TREATMENT\*POST*) is positively correlated with the dependent variable *RETIRE* (0.075).

In Table 4, Columns (1) and (2) show the treatment effect of corporate governance report disclosure on stock retirement, with and without the control variables and fixed effects, respectively. The interaction term coefficients between *TREATMENT* and *POST* are 0.016 ( $t = 3.595$ ) and 0.018 ( $t = 3.988$ ), respectively, which are statistically significant at the less than 1% level for *RETIRE*. (1) + (3) and (2) + (3) show the results of the coefficient tests after the introduction of mandatory corporate governance reports, explaining the difference in stock retirement between *TREATMENT* and *CONTROL*

and the difference in stock retirement within the *TREATMENT* group, respectively. The coefficients of (1) + (3) and (2) + (3) in Column (2) are 0.017 and 0.016, respectively, which are statistically significant at the 1% level for *RETIRE*. These results imply that the stock retirement of companies disclosing corporate governance reports after the regulation increases compared with companies without such disclosure.

**Table 4.** Corporate governance report and stock retirement

Variables	(1)	(2)
	RETIRE	RETIRE
(1) TREATMENT	0.001 (0.386)	-0.001 (-0.324)
(2) POST	0.001 (0.276)	-0.002 (-0.864)
(3) TREATMENT*POST	0.016*** (3.595)	0.018*** (3.988)
SIZE		-0.001 (-0.712)
MTB		0.003*** (4.079)
LEV		0.014** (2.514)
CASH_CE		0.014 (1.117)
ROA		0.004 (0.262)
LOSS		0.008*** (2.709)
INDIRECT		0.002 (0.862)

**Table 4 (cont.).** Corporate governance report and stock retirement

Variables	(1)	(2)
	RETIRE	RETIRE
LARGE		-0.001 (-0.110)
B_SIZE		0.001* (1.688)
B_IND		-0.015** (-2.387)
Constant	0.008*** (6.042)	0.005 (0.201)
(1) + (3)	0.017***	0.017***
(2) + (3)	0.017***	0.016***
Observations	5,932	5,932
Adj-R <sup>2</sup>	0.004	0.017
Year FE	NO	YES
Industry FE	NO	YES

Note: See Appendix A for definitions of the variables. All numbers in parentheses are t-statistics. \*\*\*, \*\*, and \* represent  $p < 0.01$ ,  $p < 0.05$ , and  $p < 0.1$ , respectively. The main explanatory variable is *TREATMENT\*POST*, which shows the treatment effect of corporate governance report disclosures on stock retirement. Equations (1) + (3) and (2) + (3) represent the results of the coefficient tests. (1) + (3) show the results of the stock retirement difference between the treatment and control groups after the exogenous shock. Equations (2) + (3) show the results of the treatment group's stock retirement difference between the pre- and post-exogenous shock periods.

Table 5 shows the results of the sensitivity analysis using the alternative retirement measures of *LN\_RETIRE* and *D\_RETIRE*. *LN\_RETIRE* and *D\_RETIRE* denote the natural logarithm of the number of retired stocks and the dummy variable, which takes 1 if the firm executes stock retirement, respectively. The alternative measures shown by Kim and Lim (2017) and the purpose of the sensitivity analysis are to verify the validity of the treatment effect in the case of alternative measures for the dependent variables. The coefficients of *TREATMENT\*POST* are 0.400 and 1.421, indicating that a company with mandatory disclosure of corporate governance reports positively affects *LN\_RETIRE* and *D\_RETIRE* and is statistically significant at less than 1%. The coefficient test is also consistent with the main result of Hypothesis 1, which states that stock retirement increases after the introduction of mandatory disclosure for corporate governance reports, even in the case of alternative measures for stock retirement.

**Table 5.** Corporate governance report and stock retirement: Using an alternative measure of RETIRE

Variables	(1)	(2)
	LN_RETIRE	D_RETIRE
(1) TREATMENT	-0.068 (-1.007)	-0.349 (-0.938)
(2) POST	-0.051 (-1.053)	-0.328 (-1.195)
(3) TREATMENT*POST	0.400*** (4.698)	1.421*** (3.484)
SIZE	0.001 (0.065)	-0.009 (-0.087)
MTB	0.055*** (3.983)	0.185*** (3.512)
LEV	0.170* (1.647)	0.992* (1.812)
CASH_CE	0.018 (0.076)	0.920 (0.752)
ROA	0.285 (1.010)	0.693 (0.536)
LOSS	0.140** (2.551)	0.650** (2.396)
INDIRECT	0.064 (1.541)	0.282 (1.259)
LARGE	-0.189 (-1.603)	-0.754 (-1.182)
B_SIZE	0.012 (1.265)	0.060 (1.216)
B_IND	-0.219* (-1.875)	-1.092* (-1.790)
Constant	-0.064 (-0.147)	0.349 (0.938)
(1) + (3)	0.332***	1.072***
(2) + (3)	0.349***	1.093***
Observations	5,932	5,932
Adj-R <sup>2</sup> (Pseudo-R <sup>2</sup> )	0.022	0.129
Year FE	YES	YES
Industry FE	YES	YES

Note: See the Appendix for the definition of the variables. All numbers in parentheses are t-statistics. \*\*\*, \*\*, and \* represent  $p < 0.01$ ,  $p < 0.05$ , and  $p < 0.1$ , respectively. Table 5 shows the main results of using the alternative measure of *RETIRE*. *LN\_RETIRE* is the logarithm of the number of retired stocks. *D\_RETIRE* takes 1 if the firm retires stocks and 0 otherwise.

Table 6 shows the effect of mandatory corporate governance disclosure on stock retirement using a propensity score matched (PSM) sample. The endogeneity issue could arise from the treatment firm size, which is listed companies with assets over 2 trillion KRW or more disclosed corporate governance reports mandatory. The total observation of the PSM-DID sample was 1,850 after conducting 1:1 matching. This study examined the treatment effect using the PSM sam-



ple by retesting Hypothesis 1. The coefficient of  $TREATMENT*POST$  is 0.019, which is statistically significant at less than 10% for *RETIRE*. The coefficient test result (2) + (3), which explains the difference in stock retirement within the treatment group, is statistically significant at less than 1% on *RETIRE*. This result shows the same direction as the main result, indicating that stock retirement increases with the introduction of corporate governance report disclosure.

**Table 6.** Corporate governance report and stock retirement: Using PSM

Variables	RETIRE
(1) TREATMENT	-0.005 (-0.754)
(2) POST	-0.001 (-0.112)
(3) TREATMENT*POST	0.019* (1.713)
SIZE	0.001 (0.315)
MTB	0.004*** (2.625)
LEV	0.020* (1.650)
CASH_CE	-0.037 (-1.093)
ROA	0.002 (0.047)
LOSS	0.016** (2.511)
INDIRECT	0.007 (1.491)
LARGE	-0.011 (-0.797)
B_SIZE	0.002* (1.717)
B_IND	-0.020 (-1.579)
Constant	-0.023 (-0.429)
(1) + (3)	0.014
(2) + (3)	0.018***
Observations	1,850
Adj-R <sup>2</sup>	0.023
Year FE	YES
Industry FE	YES

*Note:* See the Appendix for the definition of the variables. All numbers in parentheses are t-statistics. \*\*\*, \*\*, and \* represent  $p < 0.01$ ,  $p < 0.05$ , and  $p < 0.1$ , respectively. Table 6 shows the effect of corporate governance report disclosure on stock retirement using propensity score-matched samples. The samples were matched 1:1 with a 0.25 caliper distance. The propensity score was estimated by regressing the *SIZE*, *LEV*, *MTB*, *ROA*, *LOSS*, *LARGE*, *YEAR*, and *INDUSTRY* fixed effects on *TREATMENT*.

Table 7 presents the results of the main hypothesis using the balance period. The main sample period is from 2011 to 2020, which raises the endogeneity issue in the imbalanced period sample. The balanced period sample is reconstructed based on the mandatory disclosure year of corporate governance reports and reverted to whether the mandatory disclosure of corporate governance reports increased stock retirement. As shown in Column (1) of Table 7, the coefficient of  $TREATMENT*POST$  is statistically significant and positive for *RETIRE*'s dependent variables. The results of the coefficient test presented the same direction as the main results.

**Table 7.** Corporate governance report and stock retirement: Using the balanced period sample

Variables	(1)
	RETIRE
(1) TREATMENT	0.000 (0.080)
(2) POST	-0.001 (-0.365)
(3) TREATMENT*POST	0.015*** (2.665)
SIZE	-0.000 (-0.172)
MTB	0.004*** (3.799)
LEV	0.009 (1.159)
CASH_CE	0.020 (1.199)
ROA	0.042** (2.043)
LOSS	0.013*** (3.392)
INDIRECT	0.003 (0.913)
LARGE	0.009 (1.020)
B_SIZE	0.000 (0.548)
B_IND	-0.016* (-1.914)
Constant	-0.009 (-0.284)
(1) + (3)	0.015***
(2) + (3)	0.014***
Observations	3,574
Adj-R <sup>2</sup>	0.023
Year FE	YES
Industry FE	YES

*Note:* See the Appendix for the definition of the variables. All numbers in parentheses are t-statistics. \*\*\*, \*\*, and \* represent  $p < 0.01$ ,  $p < 0.05$ , and  $p < 0.1$ , respectively. Table 7 shows the results of the main hypotheses using a balanced period. The sample is constructed from 2015 to 2020, which has 3-year of pre- and post-shock.

Finally, Table 8 shows the results of the main hypotheses using firms that executed stock repurchases in the current year. This study verified whether mandatory disclosure of corporate governance reports increases stock retirement by sampling companies in which stock repurchases are executed in the current period. The main reason for this additional test is to confirm the sample selection bias of the main analysis owing to companies that did not exercise stock repurchases. The coefficient of *TREATMENT\*POST* is statistically significant and positive for *RETIRE*. The coefficient test results are the same as those of the main analysis results.

**Table 8.** Corporate governance report and stock retirement: Using the repurchased group

Variables	(1)
	RETIRE
(1) TREATMENT	-0.000 (-0.032)
(2) POST	-0.011 (-1.257)
(3) TREATMENT*POST	0.057*** (3.693)
SIZE	-0.009** (-2.319)
MTB	0.006** (2.514)
LEV	0.068*** (3.254)
CASH_CE	0.041 (0.905)
ROA	0.030 (0.522)
LOSS	0.023** (2.011)
INDIRECT	-0.018** (-2.398)
LARGE	-0.032 (-1.362)
B_SIZE	0.003* (1.869)
B_IND	-0.045** (-2.016)
Constant	0.120 (1.083)
(1) + (3)	0.057***
(2) + (3)	0.046***

Variables	(1)
	RETIRE
Observations	1,328
Adj-R <sup>2</sup>	0.078
Year FE	YES
Industry FE	YES

Note: See the Appendix for the definition of the variables. All numbers in parentheses are t-statistics. \*\*\*, \*\*, and \* represent  $p < 0.01$ ,  $p < 0.05$ , and  $p < 0.1$ , respectively. Table 8 shows the main hypothesis results for firms that repurchased stocks in the present year.

## 4. DISCUSSION

The results explain the relation between corporate governance report disclosures and shareholder return policy as a stock retirement. These findings align with the prior literature suggesting that effective corporate governance strengthens investor protection and increases shareholder value (Ginglinger & L'her, 2006; Haw et al., 2011; Webb, 2008). Furthermore, the results are in line with previous studies showing that mandatory disclosure contributes to companies' commitment to improving corporate governance to meet shareholders' expectations (Kasznik, 1999; Gramlich & Sorensen, 2004; Cormier & Martinez, 2006; Cheon & Chon, 2009). The main difference between this study and previous research is that this study uses stock retirement as a proxy for shareholders' return policy.

This study proposes the effectiveness of disclosing corporate governance reports, which provide integrated standard measurements to examine the overall quality of corporate governance, leading to enhanced shareholder value for Korean listed companies. This study explains the significance of corporate governance reports by investigating the regulatory effect of mandatory disclosure. The influence of corporate governance reports will affect all listed companies in the Korean market; therefore, this study provides implications that corporate governance reports are an indicator for assessing the level of corporate governance of Korean companies for further research.

## CONCLUSION

This paper aims to examine the effectiveness of introducing a mandatory corporate governance report on stock retirement. This paper finds that companies with mandatory disclosures significantly

increased stock retirement after introducing mandatory disclosure for corporate governance reports. The results indicate the significance of effective corporate governance report in enhancing shareholder value, presenting in increased stock retirement.

However, a limitation of this study is that the disclosure is applied only to companies with assets of 2 trillion KRW or more in the early stage of the introduction of the mandatory corporate governance report. Interest in the disclosure and evaluation of corporate governance reports has been increasing, and this study provides implications for further research.

## AUTHOR CONTRIBUTIONS

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## REFERENCES

1. Ahn, H., S. (2014). Study on the Issuance of New Shares to a Third Party for a Defensive Measure. *Commercial Cases Review*, 27(4), 119-151. Retrieved from <https://www.semanticscholar.org/paper/Study-on-the-Issuance-of-new-shares-to-a-third-for-%EC%95%88%ED%9A%A8%EC%84%AD/688796f79ce590d15dd131fc86b70dfa81060ba7>
2. Ayres, I. (1990). Analyzing stock lock-ups: Do target treasury sales foreclose or facilitate takeover auctions? *Columbia Law Review*, 90, 682. <https://doi.org/10.2307/1122911>
3. Bhojraj, S., & Sengupta, P. (2003). Effect of corporate governance on bond ratings and yields: The role of institutional investors and outside directors. *The Journal of Business*, 76(3), 455-475. <https://doi.org/10.2139/ssrn.291056>
4. Black, B. S., Jang, H., & Kim, W. (2006). Does corporate governance predict firms' market values? Evidence from Korea. *Journal of Law, Economics, and Organization*, 22(2), 366-413. <https://doi.org/10.1093/jleo/ewj018>
5. Byun, H. S., & Cho, Y. H. (2010). When Does the Information on Corporate Governance Affect Firm Values? The Relationship Between Information Asymmetry and Cost of Capital. *Asian Review of Financial Research*, 23(3), 213-248. Retrieved from <https://www.semanticscholar.org/paper/Forecasting-carbon-futures-volatility-using-GARCH-Byun-Cho/74acdf6b9b9d5884e3be34fa2207ff7c68c6e611>
6. Byun, J. H., & Pyo, M. K. (2006). Majority Shareholders Selling Behavior after the Repurchasing Announcement: Signaling or Managerial Opportunism? *Korean Management Review*, 35(3), 695-716.
7. Chahine, S., Zeidan, M. J., & Dairy, H. (2012). Corporate governance and the market reaction to stock repurchase announcement. *Journal of Management & Governance*, 16, 707-726. <https://doi.org/10.1007/s10997-011-9167-4>
8. Cheon Y., & Chon, M., L. (2009). Earnings Management of Firms that Disclose Earnings Forecasts through Fair Disclosure. *Journal of Taxation and Accounting*, 10(3), 329-356. Retrieved from <https://www.semanticscholar.org/paper/Earnings-Management-of-Firms-that-Disclose-Earnings-Young-soonCheon-Lim/6c8e5ad69d0902b9a659fe81358c2f47de36310c>
9. Choi, B. B., Lee, D., & Park, Y. (2013). Corporate social responsibility, corporate governance and earnings quality: Evidence from Korea. *Corporate Governance: An International Review*, 21(5), 447-467. <https://doi.org/10.1111/corg.12033>
10. Cormier, D., Martinez, I., & Toulouse, I. A. E. (2006). Voluntary Disclosure of Management Earnings Forecasts in French IPO's: The Impact on the Quality and Relevance of Reported Earnings. *International Journal of Accounting*

- 41(2), 209-236. Retrieved from [https://www.researchgate.net/publication/228431141\\_Voluntary\\_Disclosure\\_of\\_Management\\_Earnings\\_Forecasts\\_in\\_French\\_IPOs\\_The\\_Impact\\_on\\_the\\_Quality\\_and\\_Relevance\\_of\\_Reported\\_Earnings](https://www.researchgate.net/publication/228431141_Voluntary_Disclosure_of_Management_Earnings_Forecasts_in_French_IPOs_The_Impact_on_the_Quality_and_Relevance_of_Reported_Earnings)
11. Chung, J., W. (2012). A Critical Review of the Legal Problems of Disposition of Company's Own Shares under the Revised Commercial Act. *Journal of Law*, 15(3), 651-685.
  12. Drobetz, W., Schillhofer, A., & Zimmermann, H. (2004). Corporate governance and expected stock returns: Evidence from Germany. *European Financial Management*, 10(2), 267-293. <https://doi.org/10.2139/ssrn.379102>
  13. Giannetti, M. (2003). Do better institutions mitigate agency problems? Evidence from corporate finance choices. *Journal of Financial and Quantitative Analysis*, 38(1), 185-212. <https://doi.org/10.2139/ssrn.203768>
  14. Ginglinger, E., & L'her, J. F. (2006). Ownership structure and open market stock repurchases in France. *European Journal of Finance*, 12(1), 77-94. <https://doi.org/10.2139/ssrn.304184>
  15. Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices. *The Quarterly Journal of Economics*, 118(1), 107-156. <https://doi.org/10.3386/w8449>
  16. Gramlich, J. D., & Sørensen, O. (2004). Voluntary management earnings forecasts and discretionary accruals: Evidence from Danish IPOs. *European Accounting Review*, 13(2), 235-259. <https://doi.org/10.1080/0963818042000203338>
  17. Haw, I. M., Ho, S. S., Hu, B., & Zhang, X. (2011). The contribution of stock repurchases to the value of the firm and cash holdings around the world. *Journal of Corporate Finance*, 17(1), 152-166. <https://doi.org/10.2139/ssrn.1572265>
  18. Jiraporn, P., Kim, J. C., & Kim, Y. S. (2011). Dividend payouts and corporate governance quality: An empirical investigation. *Financial Review*, 46(2), 251-279. <https://doi.org/10.1111/j.1540-6288.2011.00299.x>
  19. Kasznik, R. (1999). On the association between voluntary disclosure and earnings management. *Journal of Accounting Research*, 37(1), 57-81. <https://doi.org/10.2139/ssrn.15062>
  20. Kim, D., E., & Kang, P., K. (2018). A Study on the Relation between Corporate Governance and Cancellation of Treasury Shares. *Korean Journal of Management Accounting Research*, 18(3), 109-140. Retrieved from <https://www.semanticscholar.org/paper/A-Study-on-the-Relation-between-Corporate-and-of-Kim-Kang/7051ddb6949c5bbfc9f5e3ddbc862558f20330de>
  21. Kim, H. K., & Lee, J. H. (2012). Corporate governance, firm value, cost of capital and R&D: Evidence from KOSDAQ. *Journal of Entrepreneurship and Venture Studies*, 15(2), 1-22.
  22. Kim, H., S. (2016). Defensive Acquisition and Disposal of Corporation's Own Stock. *Korea Financial Law Association*, 13(2), 205-236. Retrieved from <https://www.semanticscholar.org/paper/Defensive-Acquisition-and-Disposal-of-Corporation's-Kim/Of979bde5f73091777505361c97178f1b0f753b9>
  23. Kim, W., & Lim, J. (2017). An Empirical Study on Resale and Retirement of Treasury Shares: Evidence from Korea. *Korean Journal of Financial Studies*, 46(1), 35-60. <https://doi.org/10.26845/kjfs.2017.02.46.1.35>
  24. Kim, W., & Im, J. (2022) Effect of Treasury Shares on Firm Value: Evidence from Korea. *Korean Journal of Financial Studies*, 51(6), 787-819. <https://doi.org/10.26845/KJFS.2022.12.51.6.787>
  25. Kim, Y., J., Ahn, S., & Hwang, M., H. (2020). The Effect of Ownership Structure on Disclosure in Corporate Governance Report. *Journal of Industrial Economics and Business*, 43(2), 181-205.
  26. Lee, H., K. (2015). The Effect of Corporate Governance Improvement on the Financial Performance and Firm Value. *Review of Accounting and Policy Studies*, 20(4), 111-134.
  27. Lee, K., Y., & Kim, J., C. (2018). Effects of Corporate Governance and Social Responsibility on Stock Returns in Korea. *The Journal of Eurasian Studies*, 15(2), 101-120. Retrieved from <https://www.semanticscholar.org/paper/Effects-of-Corporate-Governance-and-Social-Responsibility-on-Stock-Lee-%EA%B9%80%EC%A2%85%EC%B0%AC/d8543808ff6c0d599530c00c12fd94f685d490ff>
  28. Lee, S. (2005) A Study of the Relation Between the Corporate Governance of South Korea and Firm Value. *Study on Accounting, Taxation & Auditing*, 42, 319-357.
  29. Li, S. (2010). Does mandatory adoption of International Financial Reporting Standards in the European Union reduce the cost of equity capital? *The Accounting Review*, 85(2), 607-636. <https://doi.org/10.2139/ssrn.1113353>
  30. Muttakin, M. B., Khan, A., & Azim, M. I. (2015). Corporate social responsibility disclosures and earnings quality: are they a reflection of managers' opportunistic behavior? *Managerial Auditing Journal*, 30(3), 277-298. <https://doi.org/10.1108/maj-02-2014-0997>
  31. Oh, J., Y. (2021). Weekly Market Review. 'Record, Record, Record' Will KOSPI Make a New Record in 2021? *Asiae*, 2. (In Korean). Retrieved from <https://view.asiae.co.kr/article/2021010200274919161>
  32. Oh, H., & Choe, K. (2011). The effects of corporate governance on operating performance and firm value: empirical analysis of governance ratings of corporate governance service (CGS). *Korean Corporation Management Review*, 18(2), 41-65. Retrieved from <https://www.semanticscholar.org/paper/The-Effects-of-Corporate-Governance-on-Operating-of-%EC%98%A4%ED%9B%88%EC%84%9D-KukhyunChoe/2b295fc16f56cec373737da58705f70ed4db5b46>

33. Park, J., A. (2022) Publicly Traded Companies Ramp up Share Buybacks and Retirement to Defend Stock Prices in the Bear Market. *Seoul Finance*, August(26). (In Korean). Retrieved from <https://www.seoulfn.com/news/articleView.html?idxno=465346>
34. Park, J., K. (2013). A Study on the Acquisition? Disposition and Cancellation of Company's Own Shares Under the Current Commercial Code. *Dankook Law Riview (DLR)*, 37(1), 345-371, 1738-3242.
35. Park, K., Park, R., & Hwang, L. (2005). Corporate governance and the distribution of shareholder wealth. *Asia-Pacific Journal of Financial Studies*, 34(4), 149-188.
36. Petersen, M. A., & Rajan, R. G. (1997). Trade credit: theories and evidence. *The Review of Financial Studies*, 10(3), 661-691. <https://doi.org/10.1093/rfs/10.3.661>
37. Shleifer, A., & Vishny, R. W. (1997). A Survey of Corporate Governance. *The Journal of Finance*, 52(2), 737-783. <https://doi.org/10.2307/2329497>
38. Webb, E. (2008). Bank stock repurchase extent and measures of corporate governance. *International Journal of Managerial Finance*, 4(3), 180-199. <https://doi.org/10.1108/17439130810878785>



## APPENDIX A

**Table A1.** Variable definitions

Variables	Definitions
RETIRE	The number of retired stocks divided by the sum of initial treasury stocks and repurchased stocks in the present year.
LN_RETIRE	The natural logarithm of the number of retired stocks.
D_RETIRE	An indicator variable takes 1 if firm retired stocks, and 0 otherwise.
TREATMENT	An indicator variable takes 1 if the firm disclosed a mandatory corporate governance report in 2018, and 0 otherwise.
POST	An indicator variable takes 1 if the year falls into 2018, and 0 otherwise.
SIZE	Natural logarithm of total assets.
MTB	Market-to-Book value.
LEV	Total liabilities divided by total assets.
CASH_CE	Cash and cash equivalents divided by total assets.
ROA	Net income divided by total assets.
LOSS	An indicator variable takes 1 if net income is smaller than 0, and 0 otherwise.
INDIRECT	An indicator variable takes 1 if the stock was repurchased by indirect method and 0 otherwise.
LARGE	The ratio of major shareholders.
B_SIZE	The number of board of directors.
B_IND	The ratio of outside board of directors to total board of directors.

## APPENDIX B

**Table B1.** Compliance with corporate governance key indices

Category	Key Indices
Shareholder	① Announced the convening of a shareholder meeting four weeks prior to the annual general meeting (Specific Principle 1-①) Corporations should provide timely access to information for shareholders concerning the date, location, agenda, etc., of general meetings prior to the meeting.
	② Adopted Electronic Voting system (Specific Principle 1-②) The Company should encourage shareholder participation as much as possible and ensure shareholders can propose their opinions.
	③ Avoiding the peak seasons for shareholder general meeting (Specific Principle 1-③) The Company should ensure shareholders can propose general meeting agenda items conveniently. Shareholders should be able to freely ask questions and receive explanations regarding shareholder-suggested meeting agendas.
	④ Provide annual notice of dividend policy and distribution plans to shareholders at least once a year (Specific Principle 1-④) Corporations should establish a mid- to long-term shareholder return policy and relevant plans, including those for dividends, and provide shareholders with the information.
Board	⑤ Established and implemented CEO succession plan and policies (including emergency appointment policy)
	⑥ Established and operated internal control policies
	⑦ Separated board chairman from the CEO
	⑧ Adopted cumulative voting system
Audit Committee	⑨ Established policies to prevent the appointment of any director who has damaged corporate value or infringed shareholder rights
	⑩ Removed outside directors who served more than six years
	⑪ Provided education program for audit committee at least once a year
	⑫ Established an independent internal audit team to support internal audit tasks
	⑬ Included accounting or finance expertise in the audit committee
Audit Committee	⑭ Allowed audit committee to hold meetings with external auditors at least quarterly without the presence of the firm's management
	⑮ Established and implemented procedures for the audit committee to access material information on the business operation